THE

AMERICAN JOURNAL

OF THE MEDICAL SCIENCES

APRIL, 1914

ORIGINAL ARTICLES

CHOLECYSTITIS WITHOUT STONES OR JAUNDICE IN ITS RELATION TO CHRONIC PANCREATITIS.

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Cholecystitis without stones is comparatively a common disease, and of late has come into considerable prominence. The types vary in intensity from the mild, chronic catarrhal to those characterized by necrosis of the mucous membrane, perforation, and other manifestations of severe bacterial infection.

A certain amount of uncertainty exists as to when chronic cholecystitis should be considered surgically. Not infrequently the condition is associated with appendicular infections of a chronic character, especially those forms of appendicitis in which foreign bodies, usually fecaliths, are present. Whether or not such appendicular infections are the direct cause of the infections in the gall-bladder has not been determined, but it seems possible inasmuch as bacterial or toxic products are picked up in the derivatives of the portal circulation, carried to the liver, and there destroyed or excreted in a modified form with the bile. When such infected bile is delayed in the gall-bladder, cholecystitis may result.

The clinical diagnosis of cholecystitis even when stones are present is not always easy. With the palm of one's hand, an area may be covered which could be involved in pyloric and doudenal ulcer, disease of the gall-bladder, appendicitis, and stones or infections in the right kidney or right ureter. Pain referred to this region may also be due to small ovarian dermoids and early extra-uterine pregnancy. Frequently the diagnostician must judge as to the truth of certain alleged facts narrated by the patient not by an examination of the evidence, but by delivering judgment as to the credibility of the statements of the patient. At the time the examination is made, there may be no signs which would furnish a basis of differentiation, since the patient is not then suffering from those leading symptoms which he describes.

If these difficulties present themselves when gall-stones are actually present, how much more difficult is it to make a diagnosis of chronic cholecystitis without stones when signs and symptoms are less marked. Even when the abdomen is open, a gall-bladder markedly diseased in its mucous membrane may give little or no evidence of such disease by external examination. In an examination as to the end results of some 350 patients that had been operated on for gall-stones and cholecystitis, Stanton[1] showed that more than 90 per cent. were cured or satisfactorily improved when gall-stones were present, while in only about 50 per cent. having cholecystitis without stones were the results satisfactory.

Some operators go so far as to say that they never make a diagnosis of gall-stone disease, but tell the patient that he has "an inflamed gall-bladder which needs to be opened and drained." This makes the problem too easy and leads to "snap-shot" judgment in which bias and personal equation assume too much importance. If tarry bile, that is, dark-colored bile containing a considerable admixture of mucus, be accepted as evidence of cholecystitis, a large number of mistakes in diagnosis will not be detected at operation and a corresponding number of patients will fail to obtain relief not because of the failure of operation to cure cholecystitis, but because cholecystitis in the surgical sense was not present. This may also be true of adhesions. It should not be forgotten that so-called bands and adhesions are not limited in their development to fetal life, but are continuously forming throughout life. A band of adhesions frequently extends from the gastrohepatic omentum across the duodenum in its second portion, from the gall-bladder to the transverse colon, without causal infection in the duodenum, gall-bladder, or transverse colon, and, of themselves, such adhesions cannot be considered an indication of cholecystitis. In the later period of life there is often a deposit of fat just underneath the peritoneum of the gall-bladder which gives it a whitish appearance and a feeling of thickness to the touch without any infection of the organ itself, but which may be taken for evidences of cholecystitis. The most reliable sign of cholecystitis is markedly enlarged glands along the common duct and at the juncture between the common and cystic ducts. In cholecystitis of long standing, such lymph nodes may become calcareous. Two cases of chronic cholecystitis were observed in our clinic in which calcareous lymph nodes compressed the common duct, producing jaundice. In both instances the patients were cured by the removal of the gall-bladder and the obstructing glands.

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[1] Jour. Amer. Med. Assoc., August 5, 1911, pp. 441-4.

Chronic cholecystitis produces two types of gall-bladders: (1) The large, blue, distended gall-bladder, which does not empty itself normally under compression. The bile in the gall-bladder is thin and often foul-smelling from colon infection. (2) The thick-walled, whitish gall-bladder, which is often adherent, and contains bile usually thick and tarry, with a large admixture of mucus. In many instances the gall-bladder appears to be normal. As a rule, enlarged glands along the common duct will readily be detected. Enlargement of the lymphatics may be the only sign in some cases to indicate that the gall-bladder is probably diseased. If the symptomatic evidence that cholecystitis is present is characteristic, it becomes necessary to open the gall-bladder and examine the mucosa before a diagnosis can be definitely established. At times the disease will be limited to one area which will probably not be detected by merely opening and examining the mucous membrane. In such cases the cause of the symptoms may not be discovered unless the entire gall-bladder is removed and subjected to careful scrutiny.

Assuming the foregoing to be true, it can readily be seen that while cholecystitis without gall-stones exists, until the gall-bladder is opened its existence cannot always be determined. Even after opening the gall-bladder and exposing the mucous membrane, the diagnosis of cholecystitis in the surgical sense may remain more or less doubtful until the gall-bladder or some portion of its mucous membrane be subjected to examination by the pathologist. Fortunately, for purposes of diagnosis, the strawberry gall-bladder is one of the more frequent types of cholecystitis, the mucous membrane being covered with yellow specks as though from ulceration and deposit of gall-stone material. As a matter of fact, these little yellow specks are the base of the exposed villi of the mucous membrane, which have been strippped of their covering epithelium and their connective tissue has been stained yellow by the bile.[2] The disease is strictly confined to the gall-bladder. The strawberry gall-bladder is easily diagnosed on inspection of the mucous membrane. Following radical operations for this condition as high, if not higher, percentages of cures are obtained as following radical operations for gall-stones, because the common and hepatic ducts, if involved at all, will be involved only in a catarrhal process and not subjected to the traumatism of possible stones which have descended from the gall-bladder into these ducts.

Taking the strawberry gall-bladder as the type, the more variation from it toward the normal gall-bladder the less the prospect of cure following operation because of less certainty in the diagnosis. Our scientific conscience should not be satisfied by asserting, on slender evidence, that cholecystitis exists if a diagnosis of gall-stones has been made and stones have not been found. The wish may be father to the thought and the condition should not be pronounced cholecystitis without such a diagnosis being verified by the pathologist and a grade of severity established which would make it a surgical disease. We all experience humiliation on failing to verify, at operation, a diagnosis of gall-stone disease or cholecystitis. These failures should be classified and recorded in the hospital statistics as "negative explorations of the gall-bladder." In the present state of our knowledge these are justifiable mistakes.

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[2] MacCarty: Annals of Surgery, May, 1910, pp. 651-669.

The milder degree of cholecystitis when subjected to operation will not present a high percentage of cures, and under existing conditions should usually be considered medical rather than surgical.

Experience teaches another lesson. While cholecystotomy may be an efficient procedure in gall-stone disease when the gall-bladder is otherwise normal and the ducts are free, in cholecystitis the method is not satisfactory. A gall-bladder which can keep up continuous trouble from infection alone without the mechanic irritation of gall-stones will probably not be cured by simple drainage, and cholecystectomy will be the procedure to follow. As a matter of fact, cholecystectomy is now largely indicated in gall-stone disease, and it may be said that practically all cases of cholecystitis and the large majority (probably 80 per cent.) of cases of gall-stone disease should be treated by cholecystectomy rather than cholecystostomy.

If so much uncertainty can exist with regard to the gall-bladder and its infections, how much more uncertainty must exist as regards the pancreas and its infections. The sense of sight cannot aid in solving the question, as in the examination of the mucosa of the gall-bladder, and a specimen will probably not be removed for pathological examination. The diagnosis must be established by the sense of touch and a certain amount of "intuition" on the part of the diagnostician, which unfortunately often plays too large a part in his final judgment. For many years I have made it a practice to examine the entire contents of the abdomen with the gloved hand whenever it was opened for any purpose and the condition of the patient would permit such manipulation. I have been surprised to find how frequently the pancreas showed enlargement, induration, and nodulation which would have justified a diagnosis of chronic pancreatitis if some disease of the biliary tract had been the original lesion, but in which there was no symptomatic evidence whatsoever that pancreatic inflammation existed.

In the routine examination of patients in our clinic, several hundreds of examinations of the stool have been made, in cases of chronic pancreatitis of this type, to try and ascertain whether or not there were symptoms of pancreatic insufficiency. Such a condition was rarely shown either in cholecystitis or in connection with gall-stone disease. It would seem, therefore, that statistics of the relative frequency of chronic pancreatitis should be accepted with some reserve. Evidence which to one would indicate chronic pancreatitis, to another might not do so. Yet that chronic pancreatitis does exist, and that it exists most commonly in connection with infections of the biliary tract, is an established fact.

The well-marked cases of chronic interlobular pancreatitis involving the head and often the entire pancreas, present conclusive evidence of pancreatitis just as the strawberry gall-bladder presents conclusive evidence of cholecystitis. Such extreme evidence of chronic pancreatitis is seldom found without infection of the biliary tract, but in cases less marked the evidence is often insufficient to establish the diagnosis, especially when neither gall-stones nor jaundice are present.

Robson[3] has shown that in one-third of the cases the common duct passes behind the pancreas, so that even if chronic pancreatitis is present, the common duct is not necessarily compressed and there may be no jaundice. In such cases, however, an infection from the biliary tract may extend to the pancreas and produce chronic pancreatitis. Whether this occurs more often by mucus continuity through the cystic, common, and pancreatic ducts, or, as Deaver[4] has shown, through the associated lymphatics, cannot always be determined.

Estimating at their full value all of these possible sources of exaggeration or error, there still remains a group of cases in which cholecystitis of a chronic type without gall-stones and without jaundice is accompanied by undoubted chronic interlobular pancreatitis. In such cases there is no dilatation of the common duct nor is the gall-bladder distended. That chronic pancreatitis is best treated by drainage of the bile tract is a lesson so thoroughly taught that even in those cases in which there is no evidence whatsoever of interference with biliary or pancreatic drainage, as shown by jaundice and distention of the common duct and gall-bladder, we still adhere to the practice of draining the gall-bladder without regard to the fact that it is the infection within the gall-bladder which has caused the disease of the pancreas, and that this infection will probably not be cured by drainage.

It is the object of this paper to show that in the presence of chronic pancreatitis without jaundice and without evidences of back pressure on the biliary tract the gall-bladder should be removed if it shows marked evidences of chronic cholecystitis, especially the strawberry type.

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[3] Diseases of the Gall-bladder and Bile Duct, 1904.

[4] Deaver: Annals of Surgery, xxiv, 1896, pp. 58-63.

In at least a half-dozen cases operated on in our clinic the following sequence has occurred: Cholecystostomy had been done for chronic cholecystitis without stones, and with a complicating chronic pancreatitis. The patient was relieved for some weeks or months and then the symptoms returned. Recognizing the need of more prolonged drainage, the gall-bladder was reopened and drained for a considerable period. There was complete relief so long as drainage of the gall-bladder continued, but sooner or later, after the fistula in the gall-bladder healed, the symptoms returned.

These cases are characteristic, and I have no doubt have been observed by many surgeons who have been puzzled to know just what course to pursue. It has been our experience that removal of the gall-bladder promptly relieves the symptoms and permanently cures the patient. Just what the future condition of the pancreas may be, one has no means of knowing, but I have found that chronic pancreatitis, the result of gall-stone disease, is usually cured by the removal of the stones and drainage of the biliary tract, and that in the chronic infections of the gall-bladder with secondary involvement of the pancreas, in the absence of interference with biliary drainage, cholecystectomy furnishes a satisfactory symptomatic cure.

THE TREATMENT OF PYLOROSPASM IN INFANCY.

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As early as 1788 Hezekiah Beardsley described a condition of stenosis and thickening of the pylorus occurring in young infants, and during the middle of the last century, Williamson and Dwosky also published accounts of this disease; but attention was not directed to it with sufficient force to bring it to the notice of the profession in general until Hirshsprung studied it in 1888. Since that date there have been a large number of contributions on this subject and an immense amount of theorizing as to the cause of this and allied conditions.

There is a symptom-complex not infrequently met with which is so striking that it cannot escape attention. This consists in vomiting, which is more or less projected in character, and con-